

WHAT IS CLAIMED IS:

1. A driving support system, comprising:

a first vehicle which can receive running data; and

5 at least one second vehicle which can transmit the running data to the first vehicle;

wherein, in the first vehicle, a running path of the second vehicle is estimated based on plural pieces of positional information included in the running data transmitted from the second vehicle.

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2. The driving support system according to claim 1, wherein, in the first vehicle, a possibility that a running vector of the second vehicle, which is prepared based on positional information and speed information on the second vehicle, will intersect with a running vector of the first vehicle is determined using the estimated running path.

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3. The driving support system according to claim 2, wherein, in the first vehicle, a running vector of a third vehicle behind the second vehicle is corrected using acceleration information on the second vehicle.

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4. A driving support apparatus which is provided in a first vehicle and which is used in a system that uses running data of at least one second vehicle, that is transmitted from the second vehicle, comprising:

a communication portion which receives positional information and speed information on the second vehicle, and

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an extracting portion which prepares vector mapping data including plural running vectors based on the plural pieces of positional information and speed information transmitted from the second vehicle, and which extracts a running path of the second vehicle from the prepared vector mapping data.

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5. The driving support apparatus according to claim 4, further comprising

a determining portion which determines a possibility that a running vector of the second vehicle, that is prepared based on positional information and speed information on the second vehicle, will intersect with a running vector of the first vehicle using the extracted running path.

6.The driving support apparatus according to claim 5, wherein the determining portion determines a possibility that a running vector of a third vehicle behind the second vehicle will intersect with the running vector of the first vehicle, after correcting the  
5 running vector of the third vehicle behind the second vehicle using acceleration information on the second vehicle.

7.The driving support apparatus according to claim 5, further comprising:  
an image capturing portion which captures an image of an area ahead of the first  
10 vehicle and which generates image information on the area ahead of the first vehicle,  
wherein the determining portion determines the possibility that the running vector of the second vehicle will intersect with the running vector of the first vehicle using the extracted running path and the image information obtained by the image capturing portion.

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8. A driving support apparatus which is provided in a first vehicle and which is used in a system that uses running data of at least one second vehicle, that is transmitted from the second vehicle, comprising:

a communication portion which receives positional information and speed  
20 information on the second vehicle, and

extracting means for preparing vector mapping data including plural running vectors based on the plural pieces of positional information and speed information transmitted from the second vehicle, and for extracting a running path of the second vehicle from the prepared vector mapping data.

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9.The driving support apparatus according to claim 8, further comprising:

determining means for determining a possibility that a running vector of the second vehicle, that is prepared based on positional information and speed information on the second vehicle, will intersect with a running vector of the first vehicle using the  
30 extracted running path.

10.The driving support apparatus according to claim 9, wherein the determining means determines a possibility that a running vector of a third vehicle behind the second vehicle will intersect with the running vector of the first vehicle, after correcting the

running vector of the third vehicle behind the second vehicle using acceleration information on the second vehicle.

11.The driving support apparatus according to claim 9, further comprising:

5 image capturing means for capturing an image of an area ahead of the first vehicle and for generating image information on the area ahead of the first vehicle,

wherein the determining means determines the possibility that the running vector of the second vehicle will intersect with the running vector of the first vehicle using the running path extracted by the extracting means and the image information on the area  
10 ahead of the first vehicle, obtained by the image capturing means.

12.A driving support method in which a first vehicle uses running data of at least one second vehicle, that is transmitted from the second vehicle, comprising:

a first step of receiving positional information and speed information on the  
15 second vehicle;

a second step of preparing vector mapping data including plural running vectors based on the plural pieces of positional information and speed information transmitted from the second vehicle; and

a third step of extracting a running path of the second vehicle from the prepared  
20 vector mapping data.

13.The driving support method according to claim 12, further comprising:

a fourth step of determining a possibility that a running vector of the second vehicle, that is prepared based on positional information and speed information on the  
25 second vehicle, will intersect with a running vector of the first vehicle using the extracted running path.

14.The driving support method according to claim 13, wherein, in the fourth step, a possibility that a running vector of a third vehicle behind the second vehicle will intersect  
30 with the running vector of the first vehicle after the running vector of the third vehicle behind the second vehicle is corrected using acceleration information on the second vehicle.

15.The driving support method according to claim 13, further comprising:

a fifth step of capturing an image of an area ahead of the first vehicle and generating image information on the area ahead of the first vehicle, wherein, in the fourth step, the possibility that the running vector of the second vehicle will intersect with the running vector of the first vehicle is determined using the running path extracted in the

5 fourth step and the image information on the area ahead of the first vehicle.